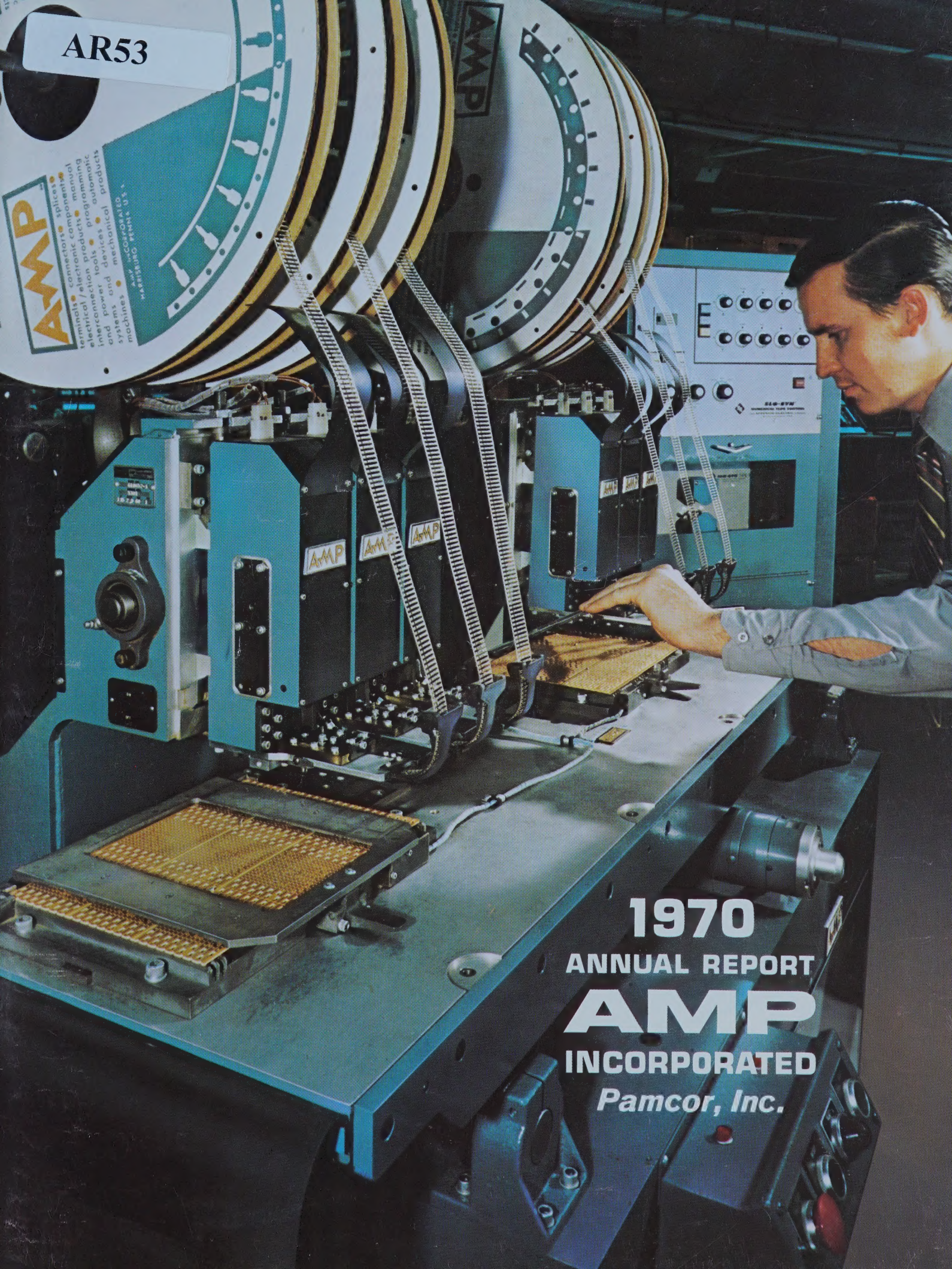
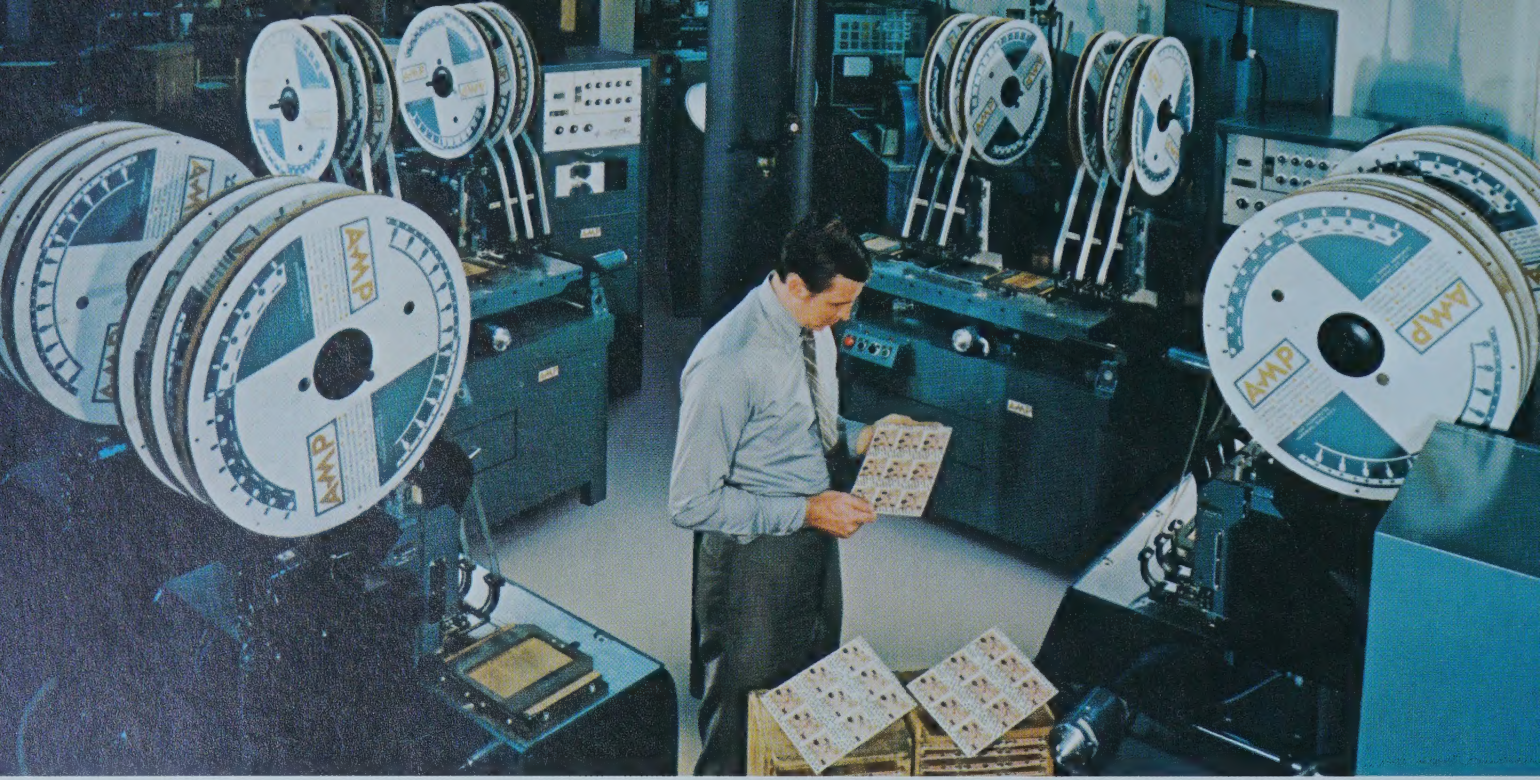


AR53

AMP
• connectors • splices •
terminal / electronic component
interconnection products • programming
and power tools • automatic
systems • mechanical products
machines •
AMP INCORPORATED
HARRISBURG, PENNSA. U.S.A.

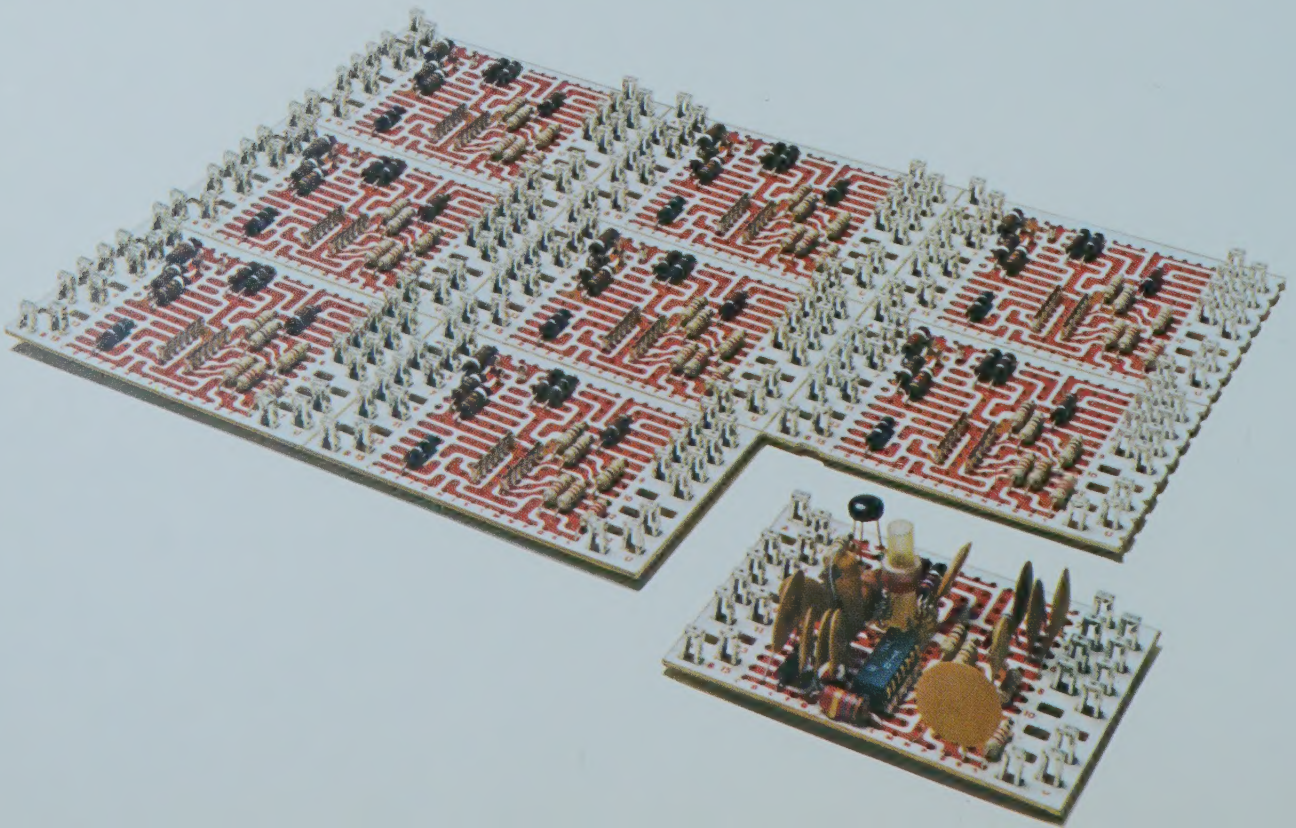


1970
ANNUAL REPORT
AMP
INCORPORATED
Pamcor, Inc.



The Cover

AMP-designed machines are shown in a Zenith production plant applying AMP interconnection contacts to Zenith's Dura Module circuit boards used in its Chromacolor TV sets. These specially developed machines can apply over one-half million contacts to over 25,000 Dura Module boards with one operator in one eight-hour work shift. As labor rates keep rising, manufacturers continually seek further automation. AMP can provide the appropriate degree of automation for their connection requirements—whether a complex, fully automated installation like this, or a simple hand tool. Called the AMP ECONOMATION program, this unique capability is shown in action on pages 7-17. The back cover depicts several methods we created to better inform customers of this increasingly valuable service.

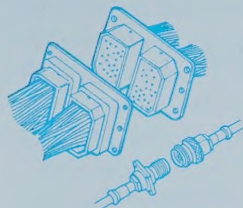


Corporate Profile

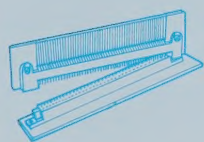
PRODUCTS



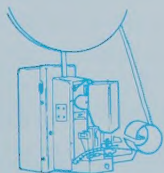
Terminals & Splices



Connectors



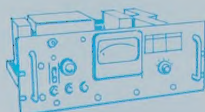
Interconnection Systems



Tooling



Programming Systems



"Power Packages"

GENERAL—AMP Incorporated, founded in 1941, has its headquarters in Harrisburg, Pennsylvania. It has a Puerto Rican manufacturing affiliate, Pamcor, Inc., owned by identical shareholders. AMP now has 12 wholly owned subsidiaries: marketing companies in the United States and Canada; and manufacturing and sales subsidiaries in Mexico, Australia, Japan and seven European countries—France, Great Britain, Holland, Italy, West Germany, Spain and Sweden 1

HIGHLIGHTS AND PRESIDENT'S LETTER—Sales up 7% to a record \$226 million; net income up 1% to a new high of \$24.5 million or \$2.00 per share 2

TEN YEAR SUMMARY AND FINANCIAL—At December 31, 1970, assets of \$184.3 million, long-term debt of \$12.3 million and shareholders' equity of \$121.4 million 4

OPERATIONS—The major portion of AMP's research, engineering and domestic manufacturing facilities are within a fifty-mile radius of its General Offices at Harrisburg, Pennsylvania. Other operating facilities are located in North Carolina, Florida, and at the various subsidiary locations. Total employees 10,426 6

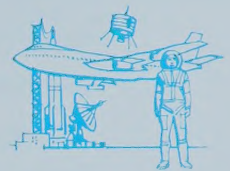
MARKETS—Throughout the world, AMP products are marketed directly to thousands of customers for use in the manufacture, maintenance and repair of the products and equipment of most industries. Over 50,000 customers in widely diversified electrical/electronic markets are served here and abroad 7

PRODUCTS—AMP is a leading producer of solderless terminals, splices, multiple and coaxial connectors and other electrical devices, and the application tooling to attach these devices to wires or circuit boards. It also produces patchcord and card programming systems, capacitor products, and other electronic components. There are over 30,000 types and sizes of AMP products. . . . 18

FINANCIAL STATEMENTS—All statements and statistics, unless otherwise noted, include AMP Incorporated, its subsidiaries and, its affiliate, Pamcor, Inc. 24

CORPORATE DATA 28

MARKETS



Aerospace & Military Electronics



Commercial Electronics



Computer & Data Processing



Consumer Goods



Transportation & Electrical



Maintenance, Modernization Utilities & Construction

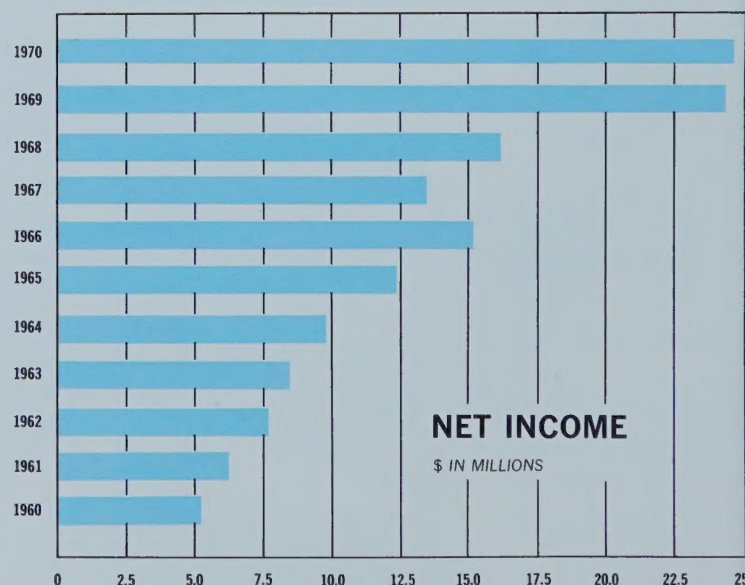
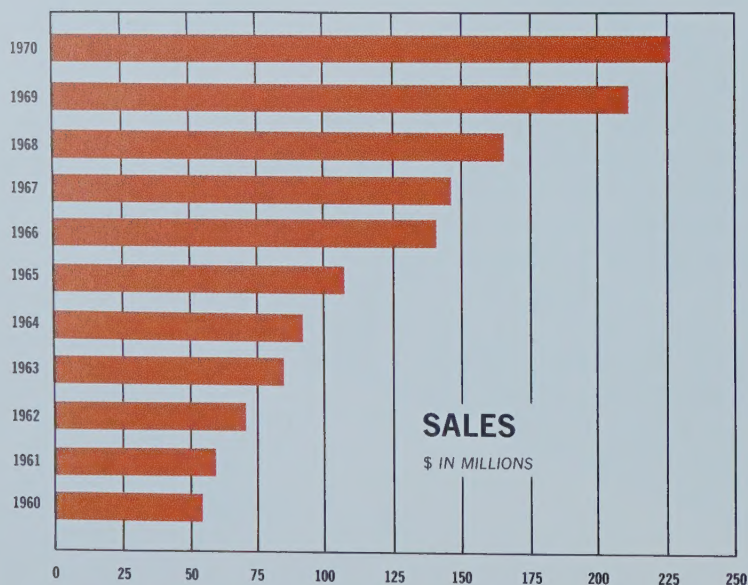
Highlights

FOR THE YEAR

| | 1970 | 1969 | 1968 |
|--|---------------|---------------|---------------|
| Net sales | \$225,827,000 | \$211,256,000 | \$167,172,000 |
| Income before income taxes | \$ 44,833,000 | \$ 47,377,000 | \$ 31,309,000 |
| Net income | \$ 24,489,000 | \$ 24,280,000 | \$ 16,227,000 |
| Per share (Weighted Average) | \$2.00 | \$1.98 | \$1.33 |
| Cash dividends | \$ 7,110,000 | \$ 5,875,000 | \$ 4,887,000 |
| Per share | 58¢ | 48¢ | 40¢ |
| Capital expenditures | \$ 23,271,000 | \$ 17,562,000 | \$ 8,465,000 |
| Depreciation | \$ 10,361,000 | \$ 9,452,000 | \$ 8,497,000 |

AT DECEMBER 31

| | | | |
|---------------------------------------|---------------|---------------|---------------|
| Backlog of unfilled orders | \$ 43,300,000 | \$ 41,100,000 | \$ 34,500,000 |
| Working capital | \$ 71,807,000 | \$ 65,823,000 | \$ 56,390,000 |
| Total debt | \$ 23,627,000 | \$ 20,314,000 | \$ 19,830,000 |
| Shareholders' equity | \$121,409,000 | \$104,031,000 | \$ 85,597,000 |
| Shares of stock outstanding | 12,268,375 | 12,251,769 | 12,225,718 |
| Number of employees | 10,426 | 10,171 | 8,785 |





Mr. U. A. Whitaker, Chairman (right), and Mr. S. S. Auchincloss, President, in one of the AMP ECONOMATION rooms.
Mr. G. A. Ingalls, Vice Chairman, is shown at right.

To the Shareholders

1970 was a year of transition for AMP. Following a year of exceptionally strong growth in 1969, we made more limited progress in 1970. Sales rose 7% to a record \$225,827,000 compared to \$211,256,000 in 1969. Earnings increased slightly to a new high of \$2.00 per share, compared to \$1.98 per share in 1969, as profit margins returned to normal after the unusually high levels of 1969.

The backlog of unfilled orders rose to \$43.3 million at year-end 1970—below the record \$44.8 million at June 30, 1970, but above the \$41.1 million at year-end 1969.

All of our 1970 growth came from the continued expansion of our overseas operations. This segment of our business has consistently grown faster than the domestic and is now approaching half of our worldwide total. The slowdown in the U.S. economy caused a distinct softening in our domestic markets. Despite this, we were able to retain the substantial gains made in 1969 by holding our domestic sales nearly even with the record level reached in that year.

While overseas sales increased in all market categories, our domestic markets were mixed. Our domestic sales to the computer and other electronics oriented markets were down, but sales to electrical equipment oriented markets were up moderately.

We continue to make organizational changes as our company grows in size and complexity. Mr. Joseph D. Brenner, formerly Vice President, Manufacturing, assumes the newly created position of Vice President, Operations. Mr. Willard A. Smith, formerly Divisional Vice President of European Operations, is now Vice President, Manufacturing, reporting to Mr. Brenner. Mr. Gerald F. Englehart, formerly Divisional Vice President, International, is now Vice President, International, reporting to the President. Mr. James E. Marley, formerly group director, is now Divisional Vice President of the Automatic Machine Products Group.

Our product scope further broadened during the year. In addition to many new connection devices, we are penetrating further into related areas such as switches and input/output data terminals. We are also exploring a field relatively new for us, the rapidly changing construction industry.

Labor-savings is a very significant factor in the AMP ECONOMATION program shown throughout this report.

With the steady rise in labor rates, and in the volume of electrical connections, the need for automation becomes greater. AMP's ability to provide customers with a broad range of tools or machines to make connections economically and reliably, is unique in its field.

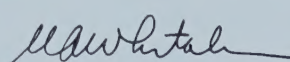
The immediate outlook in our business is more uncertain than usual. Our domestic business continues soft. As we write this letter in early February, we see no signs of any significant upturn in our domestic business. We are hopeful, however, that the stimulus being provided to the U.S. economy will strengthen these markets sometime during 1971. Reflecting the slowing of economic conditions abroad, our international business is also experiencing a slowdown after years of rapid expansion. As a consequence, it is possible that our first quarter results this year may be slightly lower than the level we just experienced in the fourth quarter of 1970.


Despite these uncertainties, we do expect some growth for the year in domestic and international sales. However, the extent of our growth will obviously be dependent on the economies of the U.S. and other major countries. Assuming some growth in both domestic and international sales, earnings should show a similar rise, since current costs and revenues have been brought into line. A general cost reduction program included a decrease of approximately 10% in domestic employment, and recent increases in our selling prices included a 4% domestic price increase.

For the longer term, we think we can maintain our normal growth rate as our markets resume their growth and we continue to develop new products and enter new markets.

We again thank our employees, customers and suppliers for their fine cooperation during the past year. With their help, we hope to make 1971 a better year of growth.

Sincerely,


U. A. Whitaker
Chairman of the Board


S. S. Auchincloss
President and
Chief Executive Officer

February 26, 1971
Harrisburg, Pa.

Ten Year Summary of Financial Data

(Dollars in thousands)

| | 1970 | 1969 | 1968 | 1967 | 1966 | 1965 | 1964 | 1963 | 1962 | 1961 |
|------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|
| <i>For The Year—</i> | | | | | | | | | | |
| NET SALES | \$225,827 | \$211,256 | \$167,172 | \$146,469 | \$141,817 | \$110,942 | \$91,676 | \$82,835 | \$73,233 | \$61,163 |
| COST OF SALES | <u>127,062</u> | <u>116,516</u> | <u>95,612</u> | <u>85,813</u> | <u>81,072</u> | <u>62,000</u> | <u>50,322</u> | <u>45,987</u> | <u>39,245</u> | <u>33,130</u> |
| GROSS INCOME | 98,765 | 94,740 | 71,560 | 60,656 | 60,745 | 48,942 | 41,354 | 36,848 | 33,988 | 28,033 |
| SELLING & GENERAL, ETC. (1) | <u>53,932</u> | <u>47,363</u> | <u>40,251</u> | <u>37,254</u> | <u>33,281</u> | <u>26,426</u> | <u>22,586</u> | <u>20,796</u> | <u>18,743</u> | <u>15,773</u> |
| INCOME BEFORE INCOME TAXES | 44,833 | 47,377 | 31,309 | 23,402 | 27,464 | 22,516 | 18,768 | 16,052 | 15,245 | 12,260 |
| INCOME TAXES | <u>20,344</u> | <u>23,097</u> | <u>15,082</u> | <u>9,749</u> | <u>12,439</u> | <u>10,068</u> | <u>9,045</u> | <u>7,510</u> | <u>7,471</u> | <u>5,605</u> |
| NET INCOME | <u>\$ 24,489</u> | <u>\$ 24,280</u> | <u>\$ 16,227</u> | <u>\$ 13,653</u> | <u>\$ 15,025</u> | <u>\$ 12,448</u> | <u>\$ 9,723</u> | <u>\$ 8,542</u> | <u>\$ 7,774</u> | <u>\$ 6,655</u> |
| Per Share (2) | \$2.00 | \$1.98 | \$1.33 | \$1.12 | \$1.23 | \$1.02 | 80¢ | 70¢ | 64¢ | 55¢ |
| <i>CASH DIVIDENDS</i> | \$ 7,110 | \$ 5,875 | \$ 4,887 | \$ 4,391 | \$ 3,652 | \$ 3,037 | \$ 2,729 | \$ 2,423 | \$ 2,119 | \$ 1,816 |
| Per Share (2) | 58¢ | 48¢ | 40¢ | 36¢ | 30¢ | 25¢ | 22¢ | 20¢ | 17¢ | 15¢ |
| CAPITAL EXPENDITURES | 23,271 | 17,562 | 8,465 | 15,977 | 17,136 | 11,817 | 6,195 | 7,891 | 5,141 | 3,507 |
| DEPRECIATION | 10,361 | 9,452 | 8,497 | 6,966 | 5,609 | 4,178 | 3,615 | 3,070 | 2,696 | 2,201 |
| <i>At December 31—</i> | | | | | | | | | | |
| WORKING CAPITAL | 71,807 | 65,823 | 56,390 | 46,022 | 35,257 | 28,645 | 26,513 | 21,645 | 19,398 | 16,019 |
| PROPERTY, PLANT AND EQUIPMENT, NET | 65,614 | 53,379 | 46,086 | 47,068 | 38,713 | 27,543 | 20,125 | 17,839 | 13,165 | 10,927 |
| LONG-TERM DEBT | 12,346 | 11,537 | 13,535 | 15,534 | 6,200 | 400 | 500 | 600 | 700 | 800 |
| SHAREHOLDERS' EQUITY | 121,409 | 104,031 | 85,597 | 73,741 | 64,283 | 53,026 | 43,671 | 36,660 | 30,501 | 24,921 |

(1) The loss of \$481,000 (4¢ per share) on devaluation of foreign assets in 1967 is included in Selling & General, etc.

(2) Based on the weighted average number of shares outstanding during the respective years after retroactively giving effect to the 2-for-1 stock split in 1967.

Financial

AMP'S FINANCIAL POSITION improved during 1970 despite lower than normal growth in earnings and the effects of tight money. We were able to increase working capital, invest a record amount in capital expenditures, pay out record dividends, and increase shareholders' equity—while not increasing debt significantly.

Receivables and inventories increased proportionately more than sales, principally because tight money slowed customer payments and higher material and wage costs raised inventory values. However, AMP was able to maintain its liquidity and finish the year in a strong financial position.

As a result of an increase in current assets and a decrease in current liabilities, working capital increased \$6.0 million to \$71.8 million and the current ratio rose slightly to 2.5 to 1.

Although total debt, both short- and long-term, increased \$3.3 million, the ratio of total debt to shareholders' equity held steady at approximately 19½%. Shareholders' equity rose to \$121.4 million, an increase of 17%, through

reinvestment of \$17.4 million of earnings to finance future expansion. We do not anticipate any need for equity financing.

CAPITAL EXPENDITURES exceeded last year's previous record high by nearly a third, rising to a total of \$23.3 million in 1970. For further discussion see Operations, page 6.

INCOME TAXES—The decrease in the effective tax rate from 1969 to 1970 was due principally to a drop in the U.S. Federal surtax from 10% to an annualized rate of 2½%, and a reduction in the United Kingdom tax rate.

The effect of the U.S. Federal surtax was 12¢ per share in 1969 and 3¢ per share in 1970.

DIVIDENDS—The quarterly cash dividend of 16¢ per AMP endorsed share payable March 1, 1971, to shareholders of record on February 8, 1971, indicates an annual rate of 64¢ per share, compared to 58¢ per share in 1970. This is the thirteenth consecutive annual increase of more than 10% and the eighteenth consecutive annual increase.

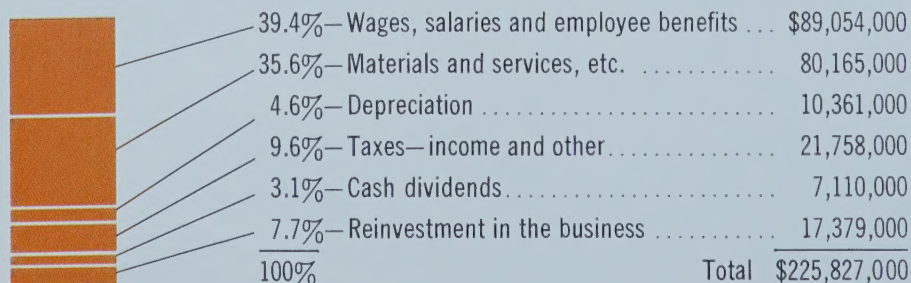
AMP's Position in U.S. Industry

Growing entirely through new products and markets without benefit of acquisitions, AMP has in recent years entered the ranks of major U.S. corporations. The latest standings from the reports of two widely read financial publications are shown at right.

| | |
|---------------------------------|-------|
| Sales | 410th |
| Net Income | 209th |
| Net Income (as % of Sales)..... | 24th |
| Earnings Per Share Growth Rate: | |
| 1959—1969 | 54th |
| 1965—1970 | 57th |
| Return on Equity..... | 25th |
| Return on Total Capital..... | 17th |

(Based on 1969 and 1970 results as shown in the 1970 issue of Fortune "500" and Forbes 1971 23rd "Annual Report" issue.)

How the 1970 Sales Dollars were used



Operations

Although 1970 was a year of modest sales growth, capital expenditures reached a record high of \$23.3 million as we prepared for continued long-term growth. Over one-third of this total was for additional land and buildings as floor space increased over 300,000 sq. ft. to a record 3,000,000 sq. ft.

New plants were built or acquired in Elizabethtown and Jacobus, Pa.; Charlotte and Greensboro, N.C.; and in Sweden. New marketing facilities were built at Valley Forge, Pa. and Compton Cal. in the Los Angeles area. Additions were made to the corporate research building in Harrisburg; to plants in Carlisle, Shrewsbury and Williamstown, Pa.; and to plants in Italy and West Germany. Along with this expansion, a similar amount was spent on new equipment within our facilities—placing us in a strong position for future sales growth.

Total employment rose slightly during 1970 to a record 10,426 at year end. Because of our further growth overseas, we continued to add personnel. However, as part of a general program to bring costs in line with revenues, domestic employment was reduced 10% and will probably remain at this level until our business resumes a more normal growth pattern.

Marketing

Despite a general softness in our U.S. markets in 1970, we held domestic sales nearly even with the high level reached in 1969—while continuing our good international growth. We were able to do this because of our diversity of products and markets, introduction of new products and application machines, and penetration of new markets.

Our traditionally close liaison with customers is being intensified by assigning more of our field sales engineers as product or market specialists to a particular industry, rather than on a strictly geographic basis. This market-oriented specialization is an extension of our historic emphasis on understanding specific customer needs and anticipating product trends in our major markets.

Another forward step was the creation of three AMP ECONOMATION demonstration rooms and a similar display in a mobile van now visiting customers. Shown on the back cover, they are evidence of our commitment to solving a customer's total connection problem by providing him with exactly the right degree of automation in using our products. The following pages show the AMP ECONOMATION program in the six broad markets we serve.



New Los Angeles district sales offices and warehouse of AMP and American Pamcor, Inc. at Compton, Cal.
West German subsidiary at Frankfurt doubled its floor space in 1970.



Markets



AEROSPACE AND MILITARY ELECTRONICS

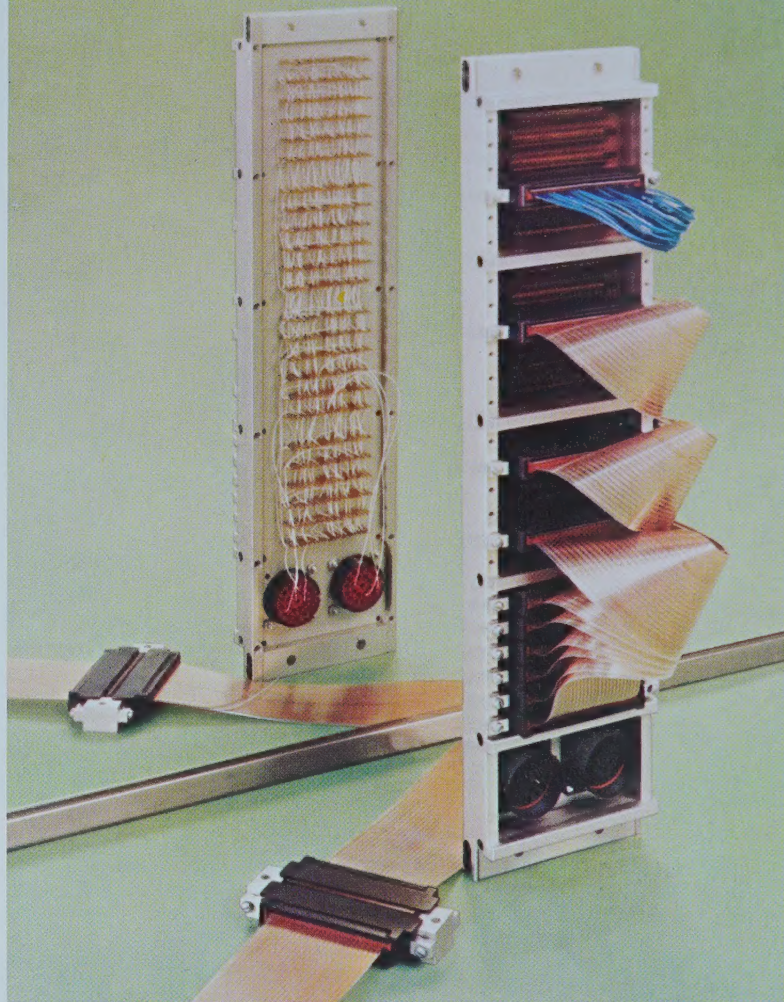
Commercial Aircraft • Business and Private Aircraft • Air Traffic Controls • Avionics • Military Communications • Missiles • Defense Systems • Space Vehicles • Ground Support Equipment • Oceanography.

The two AMP connection techniques shown at right were developed in response to the demand from aircraft manufacturers for new circuitry approaches. They point the way to greater use of flexible flat cable, instead of conventional wiring, to gain space, weight and handling advantages. Answering the need for cost reduction, the connector contacts can be applied to the cable by the customer with an AMP automatic machine.

In the versatile Connector Junction System (top picture), the rear panel contains connector posts wired by an AMP TERMI-POINT tool or numerically controlled machine. Since the panel is removable, the circuitry between cable connectors can be quickly converted to new avionic equipment requirements by substituting a differently wired panel.

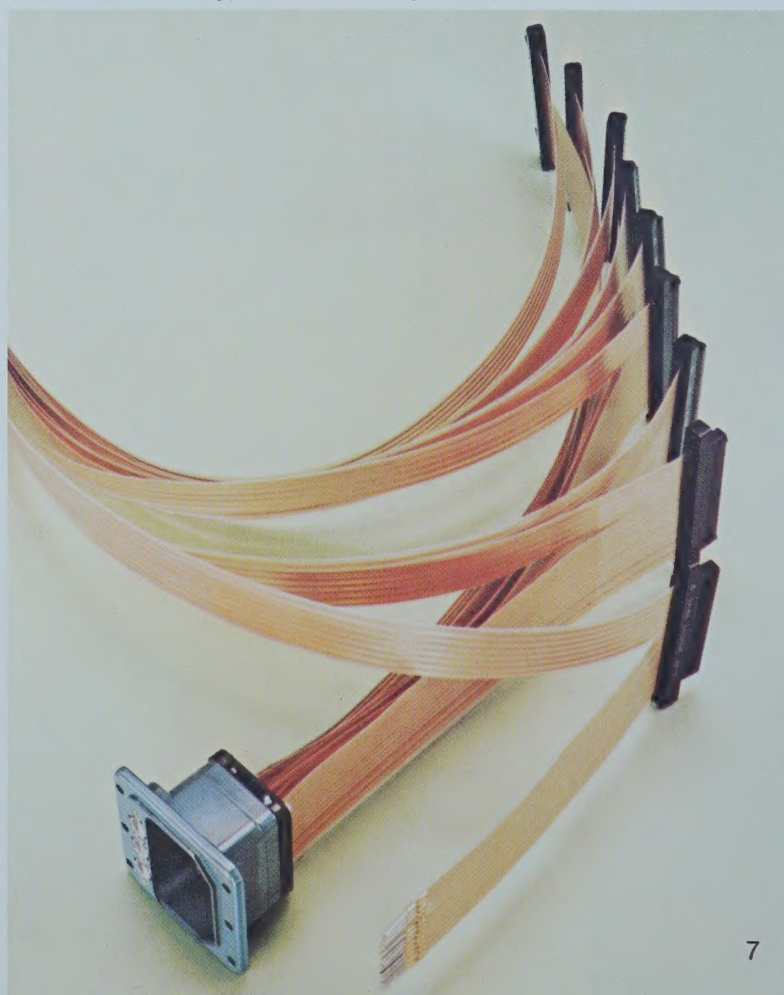
The standard pin and socket contacts in the AMP ARINC-type connector (bottom picture) have been modified to permit direct use of flexible flat cable without any intermediate connection hardware.

Flexible flat cable is only one of a number of newer circuitry approaches in this field that offer good opportunities for AMP to develop new products. Our prospects for growth in this field vitally depend upon continued broadening of our product lines, and on our unique capabilities in providing customers with application tools and machines.



Connector Junction System for flexible flat cable.

ARINC-type connector adapted to flexible flat cable.





AMP data input terminal (above) and multiplexer (below) used by Moore Business Forms Inc. in hospital information systems.



COMMERCIAL AND INDUSTRIAL ELECTRONICS

Credit Systems • Business Machines • Quotation Systems • Communications • Numerical Controls • Production Control Systems • Process Controls • Instrumentation • Test Equipment • Medical Equipment • Educational Equipment • Security Systems.

The areas of information systems and communications are expected to be among AMP's fastest growing markets in the Seventies. New types of information systems are being created in many fields to save labor, improve controls, and provide better service.

The system shown at left installed by Moore Business Forms, Inc. was specially designed for hospitals. It permits much more efficient collection of data on patient treatment.

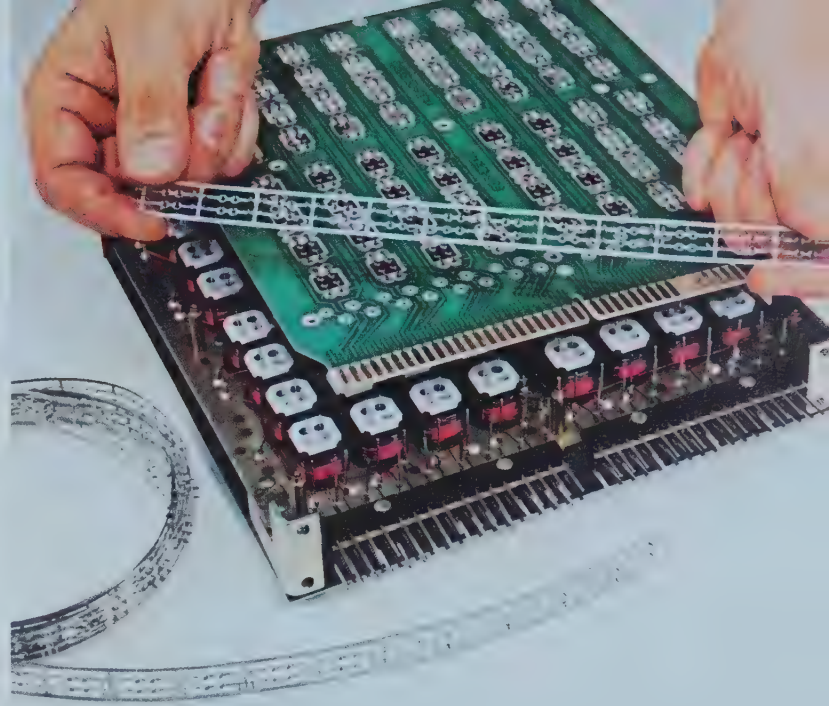
Our initial and primary role is to provide connection and programming devices for use in customer equipment. More recently, however, we have significantly broadened our scope by being able to provide complete functional units to a systems designer such as Moore. While we are still serving as a supplier of components, they have become much more complex. This particular desk-top data input terminal was customized to Moore specifications by combining standard AMP card readers, switches, and scanners.

In addition to the various remote data input terminals located throughout the hospital, AMP also supplies the multiplexer data collection unit shown at left below. It accumulates and prepares the data for transfer to the hospital's computer.

In the coming years the need for better data collection and transmission techniques will be one of the major reasons why telephone systems will be undergoing tremendous expansion and

modernization. The top picture at right depicts AMP's contribution to a Western Electric ferreed switch assembly, which is a vital part of the electronic switching equipment being installed for Bell System operating telephone companies. Special AMP contacts were developed to connect the leads of each magnetically operated, dry reed switch into the circuit board. With the AMP machine shown below, over 23,000 contacts will be applied per hour. Previously, individual contacts were tediously installed one-by-one.

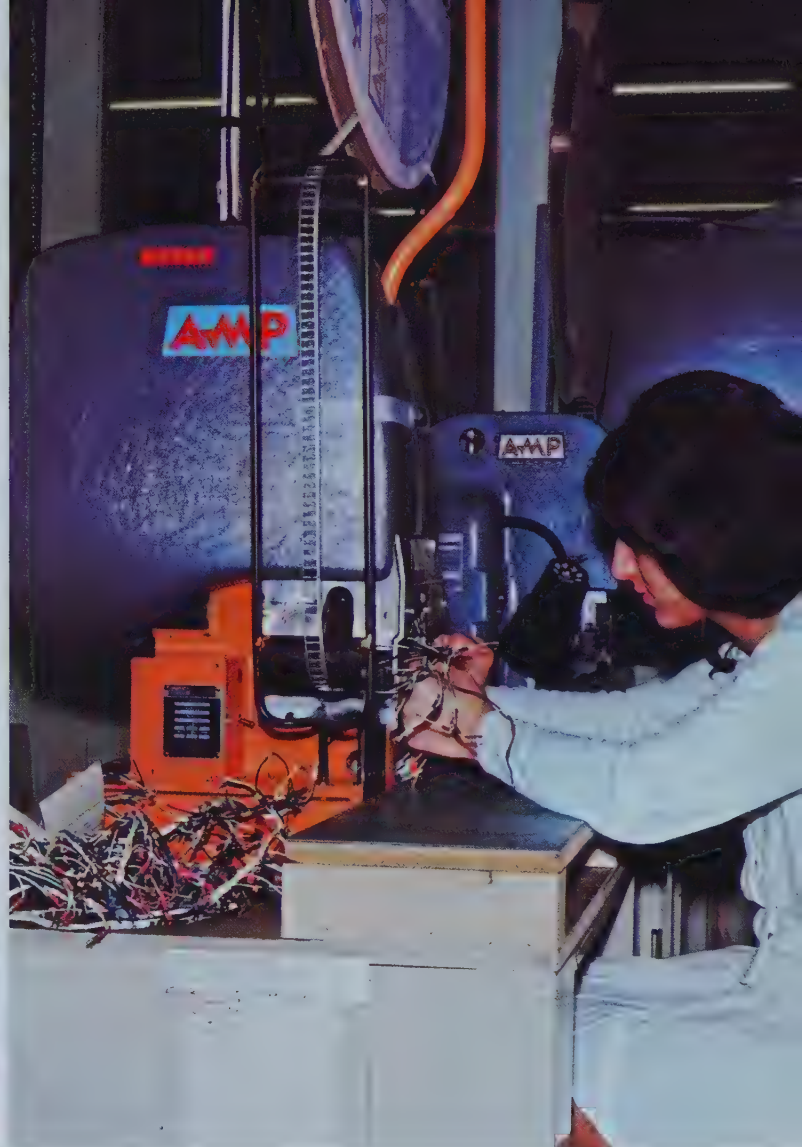
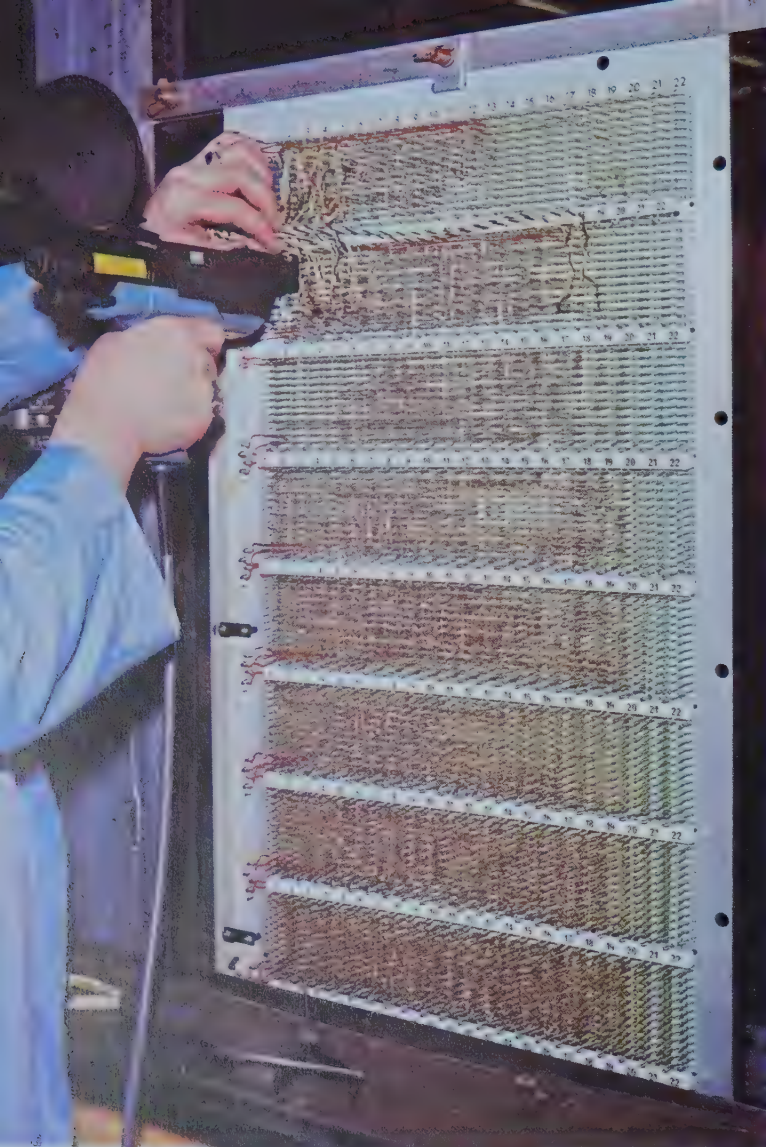
This ability to provide customers with automation, along with design innovation on new connection devices, is also evident in other products we are beginning to supply to Western Electric and Bell Labs. Among the first developments for Western Electric were special connectors and card readers for production testing of switching equipment. One of the newer Bell Labs projects we participated in was the Picturephone, on which a number of AMP products are now specified. During the Seventies we expect to further broaden our role in this dynamically growing field.



AMP contacts for Western Electric ferreed switch assembly.

AMP machine developed for Western Electric to apply contacts to circuit boards.





Left—AMP TERMI-POINT tool wiring hundreds of AMP connectors on ICL computer main panel. **Right**—AMP machines at ICL in Great Britain.

Below—AMP products in an OLIVETTI desk-top computer.



COMPUTERS AND DATA PROCESSING

Digital Computers • Analog Computers • Hybrid Computers • Data Entry Equipment • Printers • Data Converters • Visual Displays • Input/Output Terminals • Time-Sharing Equipment.

In this market our fastest growth in 1970 came in the European computer industry. Shown on this page is equipment of two of the leading European producers—ICL in Great Britain and OLIVETTI in Italy. Both make extensive use of AMP products and machines in producing many other types of equipment as well as computers.

The densely wired ICL computer main panel, shown above, is composed of hundreds of AMP printed



AMP products used in the NCR 280 retail system.

circuit edge connectors. These connectors have connection posts that permit the use of highly efficient point-to-point wiring techniques, such as the AMP TERMI-POINT pneumatic tool being used. The bench machines shown above are a few of the many AMP machines ICL uses to apply AMP terminals and contacts to wires.

The OLIVETTI Logos desk computer pictured at the left uses a variety of AMP products—most of them machine applied. OLIVETTI, like most customers in this field, applies terminals and contacts to wires by using a number of AMP machines.

The NCR 280 retail system shown above in a store in Ohio is indicative of the continued trend toward systems in which data is entered and used at point of origin. A clerk merely passes a fiber optic sensing wand over a specially encoded pricing ticket on the item being sold. The desk-top minicomputer

automatically records the data for central computer input and prepares a transaction slip. By direct link with the central computer, an instant credit status report is also provided. The AMP products shown above are all used in each of these units. Nearly all are machine applied. Additional AMP products, virtually all applied by AMP machines as well, are used by NCR in the ticket imprinter equipment and in the central computer.

ICL, OLIVETTI and NCR are among the many multinational companies we serve through our worldwide organization of subsidiaries in the major industrialized countries of the free world.

In an increasingly complex society there is a growing need for computer-oriented information systems. With a wide range of present products and many new products in development, AMP expects to participate in this growth.



CONSUMER GOODS

TV • Radio • Stereo • Tape Recorders • Organs • Washers • Dryers • Dishwashers • Refrigerators • Freezers • Air Conditioners • Humidity Controls • Portable Heaters • Small Appliances • Power Tools • Garden Equipment • Vending and Amusement Equipment.

AMP products are used in the production of consumer goods throughout the world. Shown here are AMP machines in action at Taiko Denki in Japan and Zenith TV in the United States. Taiko Denki, a leading Japanese harnessmaker, uses several types of standard AMP machines. The Single End Leadmaking Machine shown can apply up to 6,000 terminals or contacts per hour. The production from this higher volume, semiautomatic floor machine is supplemented by numerous bench machines on which an operator can terminate up to 4,000 wires per hour.

One of the keys to full customer utilization of AMP machines is our quick-change, miniature applicators, such as the one shown at right. Each applicator mechanism has dial settings to adapt to different sizes of wires. To convert to a different type of product, another applicator can be quickly substituted in the machine. Arrayed in front of the applicator are strip-form, machine-applied terminals and contacts used on Taiko Denki harnesses supplied to manufacturers of appliances and home entertainment goods.

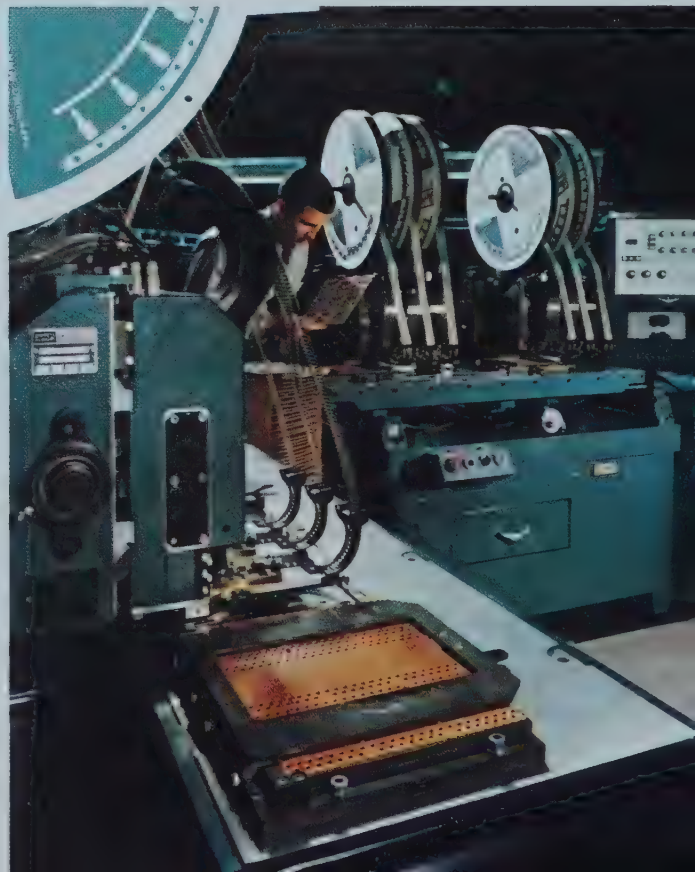
In contrast to these fairly standard AMP machines and products, the insertion machines and electronic modules shown are the result of extensive AMP development work with U.S. TV producers. These numerically controlled machines were specifically designed to meet Zenith's production requirements as they convert their TV sets to modular design. Four machines are capable of inserting some 70,000 contacts per hour into module boards. "Next Generation" equipment is expected to give much higher production levels.

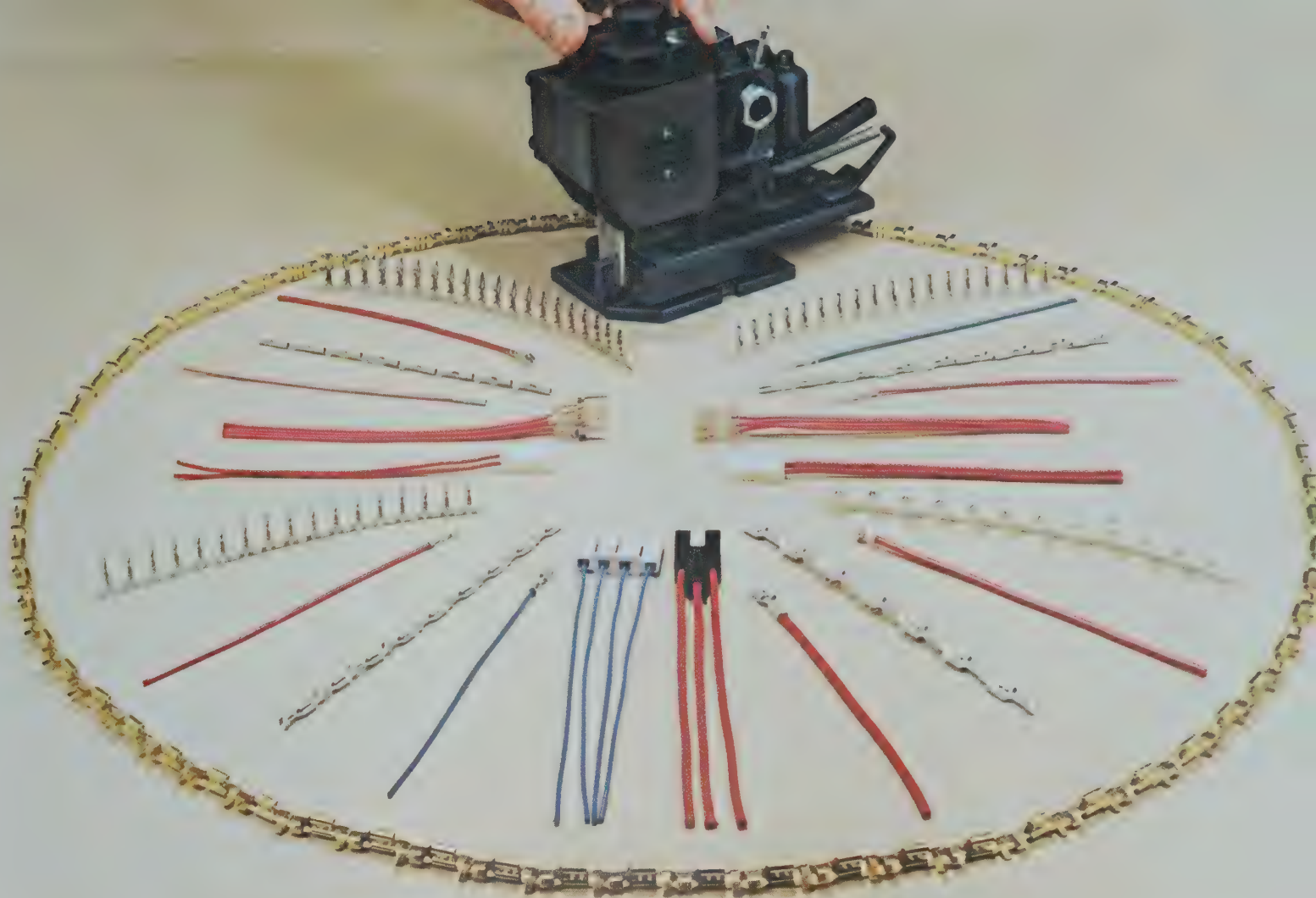
A Zenith Chromacolor Dura Module is shown surrounded by modules from Magnavox, Motorola, Warwick, and Wells-Gardner—U.S. producers of TV and stereo who are also using AMP interconnection contacts and application machines. With its labor saving and servicing advantages, we expect modularity to be increasingly used in electronic equipment. For example, we are now exploring this approach with several Japanese and European TV producers who are interested in AMP modular connection techniques. The AMP ECONOMATION program will play an important role in the trend towards modularity in the coming years.



AMP Single End Leadmaking machine at Taiko Denki, a harnessmaker in Japan.

Two of the AMP numerically controlled, contact insertion machines at Zenith.





AMP products used by Taiko Denki on wiring harnesses.

AMP contacts are used on Magnavox (a), Wells-Gardner (b), Motorola (c) and Warwick (d) modules, as well as on the Zenith Dura Module.





An AMPOMATOR machine used in making automotive wiring harnesses at Riverside Manufacturing Ind.



TRANSPORTATION AND ELECTRICAL EQUIPMENT

Motors and Generators • Compressors • Refrigeration, Heating and Air Conditioning Equipment • Lighting Equipment • Transformers • Coils and Relays • Automobiles • Trucks • Busses • Rail and Rapid Transit Equipment • Farm Equipment • Materials Handling Equipment.

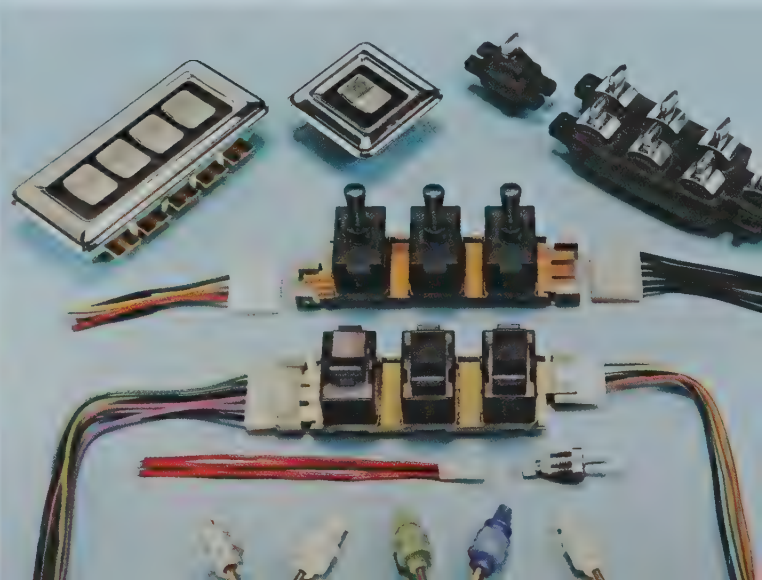
While we continue to apply our capabilities to all of the connection requirements of this broad field, we have been placing special emphasis on the emerging needs of the U.S. automotive manufacturers. Because of the very high production volumes and rising wage rates, automation is a very important factor in this industry. The AMPOMATOR machine at left is capable of up to 12,000 terminations per hour. It is one of many machines supplied by AMP to a leading automotive harnessmaker, Riverside Manufacturing Industries Inc., a subsidiary of Lehigh Valley Industries.

With the growing concern for pollution, safety and reliability, many new electrical and electronic systems are being designed for cars and trucks. The connectors shown below at left are just a few of the products AMP is creating in response to the need for special automotive connection devices. They are rugged and dependable, as well as low in purchase and labor handling costs. The foreground shows a Ford electronic spark advance unit for emission

Special connectors for the auto industry.



Special switches for the auto industry.



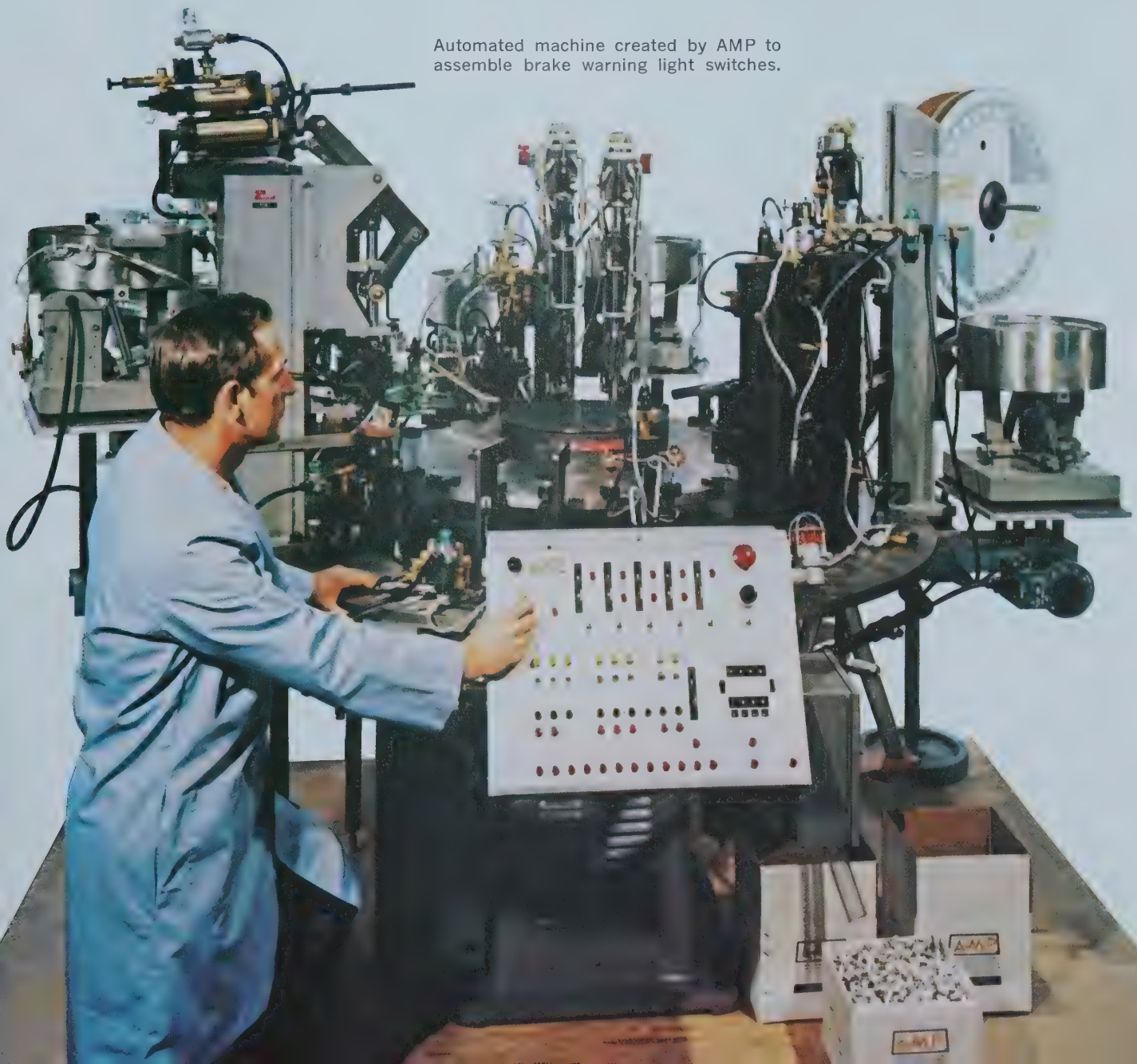
control. The connector for this device is one of a new family of AMP connectors designed for the growing number of printed circuit boards used in this field. Other members of this family are used, for example, in electronic anti-skid and anti jackknife braking systems and on new types of board-mounted switches. Also in the picture are connectors for a windshield wiper motor, wiper switch, and a power window lift switch.

In searching for related areas to broaden our product scope, we are finding that switches offer a very good potential. Our designs seek to reduce the number of parts in a switch and utilize automated assembly whenever possible. The picture below on the facing page shows some

of the special switches we are creating for this field. Some, such as the plunger switches and the toggle switch unit, are already in use, while others are still under customer evaluation.

The complex machine shown below was developed by AMP to fully automate our assembly of certain plunger switches. The machine not only assembles all eight parts, it also tests at each stage so that a malfunctioning unit can be rejected as soon as possible to minimize costs. Arising out of the same basic capability as the AMP ECONOMATION service we provide customers, this type of automation in our own plants will be a key factor in our ability to provide customers with better switches at lower cost.

Automated machine created by AMP to assemble brake warning light switches.





Top—A display of AMP terminals and tools in a Montgomery Ward store.
Above—Some of the electrical and electronic parts catalogs that now list AMP products.



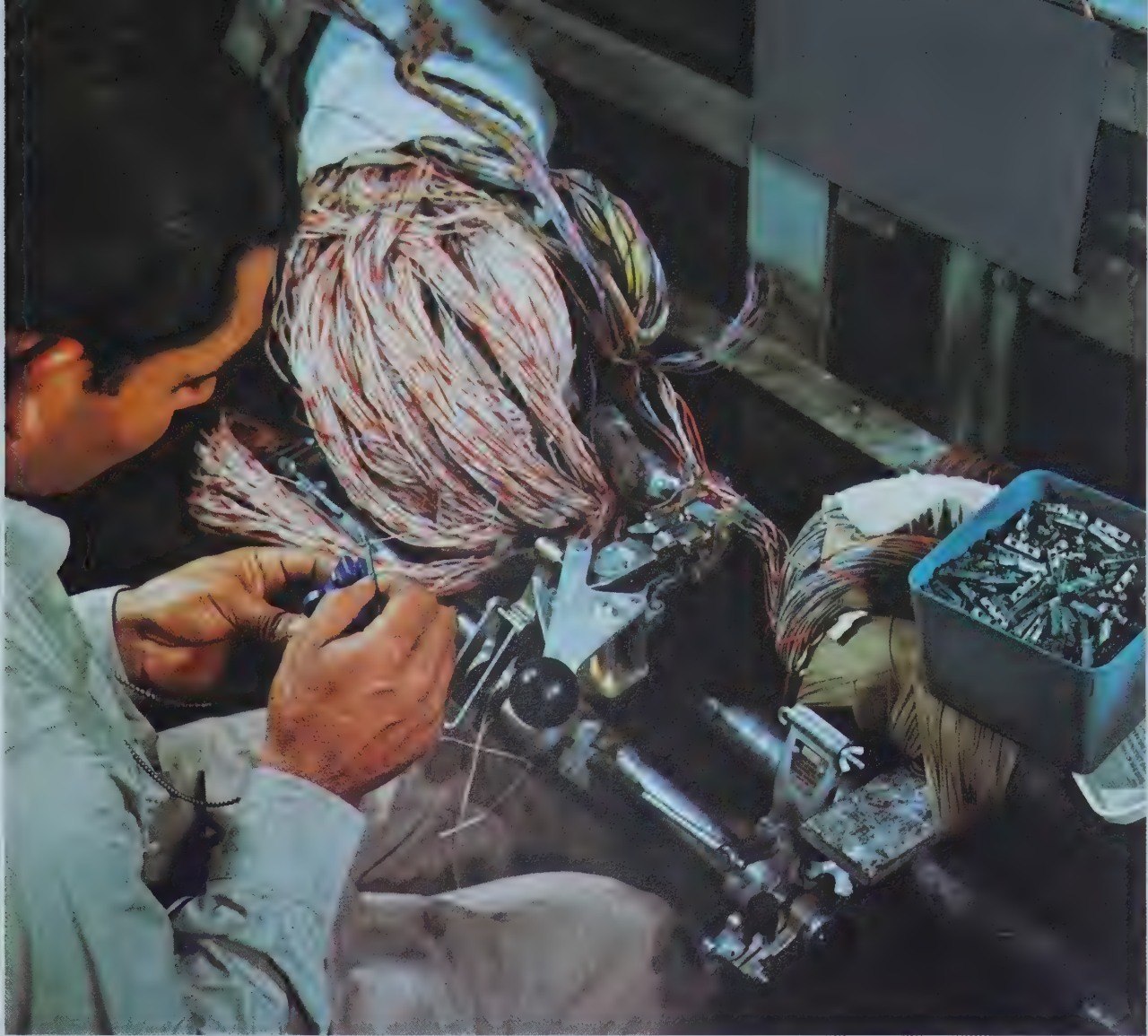
MAINTENANCE & REPAIR, UTILITIES, CONSTRUCTION

Airlines • Bus Lines • Trucking Companies • Railroads • Ship-
yards • Industrial Plant Maintenance • Repair Shops • Con-
tractors • Federal, State & Local Government • Electric
Power Companies • Telephone Companies • CATV • Gas
Companies • Resale Organizations

A small but growing part of our marketing effort is being directed at the large potential in the retail field. To make our products more readily available to the individual or small business user of connection devices, our subsidiary American Pamcor, Inc. has been making various marketing arrangements in recent

years that are providing us much broader exposure. The display shown above in a Montgomery Ward store is becoming a familiar occurrence. A number of major retailers now merchandise AMP tools, terminals and splices. We usually package them under the customer's private brand name and also provide appropriate signs and racks to display these products in the retailer's store.

The listing of our products by major electrical and electronic parts catalog houses, such as the ones shown above, provides an entirely new outlet for us. Other activities in this general direction include providing special tool and product kits to equipment manufacturers, who



AMP's PICABOND tool and splices being used to splice telephone cable at an overseas location.

then resell them to their dealers for use in equipment maintenance work.

The splicing of telephone cable with our PICABOND tools and splices is a familiar scene at U.S. telephone utility companies—but quite new internationally. Since their introduction in the mid-Sixties, the AMP method has gained wide acceptance with U.S. independents and some limited use within the Bell System. It offers a faster, more reliable and lower cost means of joining the thousands of wires in a typical telephone transmission cable.

These advantages are now being recognized by a number of telephone companies in other

countries who have standardized on, or are making substantial use of, PICABOND products. Still others are in various stages of field testing and evaluation. The above picture shows our PICABOND tool and splices in production use at an overseas location.

We have done very little business in the building industry to date. However, the dramatic changes taking place in this field involving mass-produced, modular types of construction have prompted us to begin development work on the special needs that are arising. Some of our earliest results are shown as new products on page 23.



Main research building in Harrisburg was doubled in size in 1970.

Product Review

The recent expansion of our main research building is a visible indication of the importance of research at AMP. As the field of electrical and electronic connections gets broader and more complex, research becomes more significant in keeping us responsive to future customer needs. Largely centralized in Harrisburg, it provides the scientific foundation so vital to the effectiveness of our many development engineering groups. In total, 10% of our 1970 sales was spent on research, development and engineering for the creation and application of new and improved products and processes.

Twenty some years ago, as a small company serving only a few electrical markets; our product development work was quite limited in scope since only rather simple wires and vacuum tubes were in use. Surprisingly, much of this early work is still relevant today as these older types of circuitry continue to have wide customer usage. Today, however, our development work spans a very broad range of activity because of the many types of conductors and circuitry now being used or considered. We now work not only with conventional copper wire in a myriad of types and sizes, but also with many more recent types of conductors such as aluminum wire and cable, aluminum foil, rigid and flexible printed circuit boards, flexible flat cable, ribbon cable, matched impedance cable, shielded wire, twisted pair cable, coaxial cable, and waveguides. While electronic circuitry today still includes vacuum tubes, it has gone far beyond this stage into transistorized and integrated circuitry—even into LSI or “large scale integration” of many functions on one small chip or wafer.

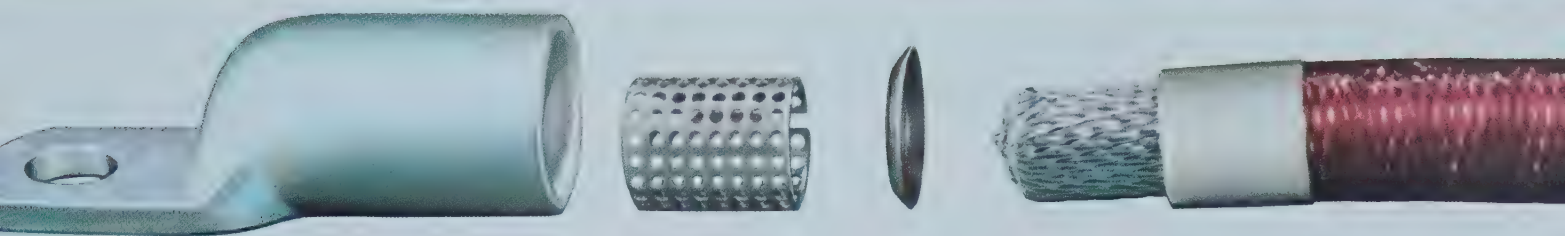
This constant broadening provides AMP with both a stable base of established products and many growth opportunities which demand increasingly sophisticated skills. By concentrating nearly all its resources on the electrical connection field and related areas, AMP has built up capabilities that are truly unique. By applying them to specific problems of our customers, we have produced a steady flow of new products, machines and

processes. One measure of this flow is patents. At year-end 1970, over 1,450 U.S. and 8,700 corresponding patents in 38 other countries were issued or pending.

This section is a brief, selective review of the newest products and application tooling. Several points emerge. In the mainstream of our business—electrical connections—our opportunities continue to grow because of the widening variety of conductors and types of circuitry, as well as the desire of customers for automated equipment to apply AMP connection products. In addition, there is further confirmation of our continuing search for new products and markets that will broaden our scope and take us into new growth areas.

Terminals and Splices—Despite the rapidly increasing use of microminiaturized circuitry in the heart of electronic equipment, the amount of wire used continues to grow. Many new types of terminals and splices are therefore needed. Perhaps the most significant development in this area is our recent work on aluminum terminations. Aluminum wire and cable offer advantages in cost, weight and supply, but present connection problems. Special crimp configurations have been created to effectively seal and confine the conductor within the wire barrel. The COPALUM products on the facing page eliminate the need for an inhibitor compound. They are a response to the aircraft industry’s growing interest in aluminum wire and cable. We also added to our TERMI-FOIL product family to facilitate use of aluminum foil by electrical and electronic equipment manufacturers. Similarly, page 23 shows a new type of terminal and application tool developed for use on aluminum wire in the construction industry.

Multiple Connectors and Packaging Devices—Several connectors are particularly interesting at this time because they respond to rather new areas of need. On page 7 we show two new approaches that could help the aircraft industry make more use of flexible flat cable. Both utilize automated applications of contacts by AMP machines.

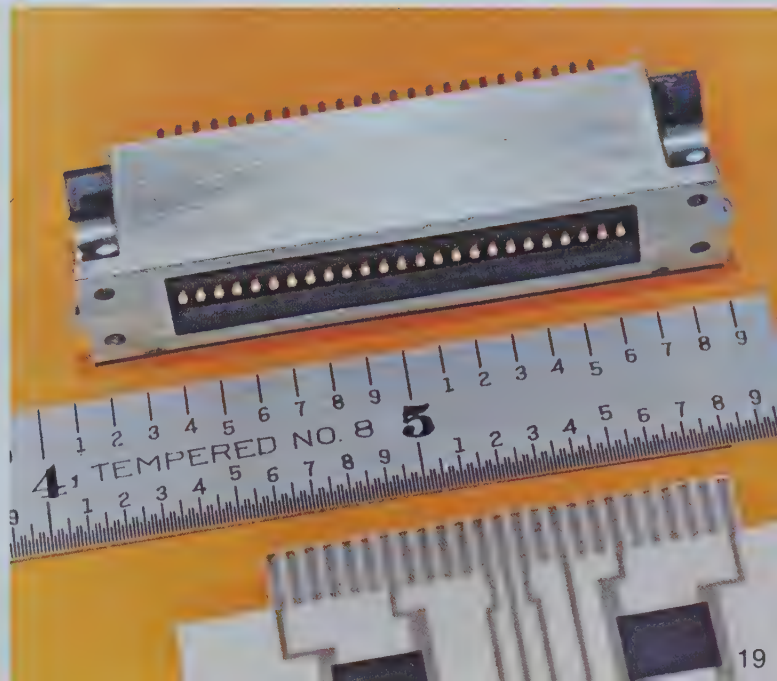


Newest terminals and splices for connecting aluminum wire, cable, and foil.

Miniature matched impedance connectors for high-frequency circuits.



A "zero entry force" connector for a ceramic integrated circuit wafer.





An extremely versatile, low-cost interconnection system for commercial electronic circuitry.



Internally fired "tool-less" lugs and URD connectors contain a powder charge actuated by a hammer blow.

Complete assembly of AMP connectors provided to customer by our in-house wiring facility.



The need for increased pulse speed in electronic circuitry is creating interest in microminiature matched impedance connectors that will preserve the exact characteristics of the high-frequency signal as it passes through the connector. These new AMP connectors can match the performance of the special conductors they are to be used with, such as microstrip or other subminiature transmission links. The family of connectors shown on page 19 uses tiny pin and socket contacts, only .030" in diameter, which have extremely short mating lengths that minimize circuit distortion.

Ceramic wafers of integrated circuitry are too fragile to withstand the insertion and withdrawal forces needed with conventional printed circuit edge connectors. We are developing special "zero entry force" connectors, such as the one on page 19, in which the contacts remain wide open to receive the wafer with no resistance, and then are moved into position by a closing mechanism.

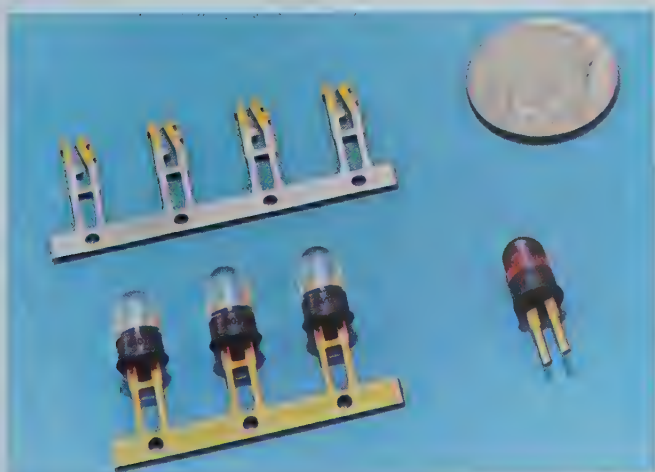
Along with specific new connector areas such as these, we continue working to reduce the cost of connectors, both old and new. Through a new process, certain printed circuit connector housings can now be made to any desired length. Automated insertion of contacts is reducing labor costs. New materials, such as impregnated paper, can sometimes provide further cost savings.

We are developing new packaging devices that permit customers to fabricate or use integrated circuitry units. For example, we are expanding our family of lead frames upon which circuitry manufacturers can place their circuitry chips. Lead frames available include configurations for power transistors, light-emitting diodes, dual-inline packages, and large scale integration

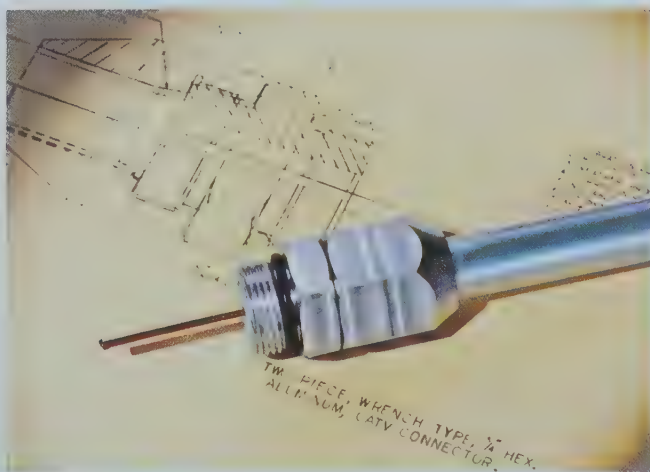
units. Several new designs are exploring the possibility of eliminating the tedious, costly operation of bonding gold wires from the chip to the lead frame.

Additional sockets, headers and receptacles were developed to accept various types of integrated circuitry units. Some offer low-cost, relatively fixed installation, while others offer pluggability. Some are designed for printed circuit board installation, others for point-to-point wiring panels. AMP TERMI-POINT wiring devices for point-to-point wiring gained further acceptance—particularly our "in-house" wiring service that offers complete assemblies for installation in customer equipment. Drawing on a complete range of connection products, and extensive panel wiring facilities, we can provide customers with complex assemblies such as the one shown on page 20.

Coaxial Cable Connectors—Development activity in this area is stressing connector design simplification, connectors for commercial markets, and connectors for microcircuitry applications. Whenever feasible, existing types of products are being redesigned to decrease the number of parts per connector, standardize parts among various connectors, and reduce the need for special application tools. In seeking the best growth areas, development work is particularly responsive to the needs of commercial markets such as computers, communications, and instrumentation—e.g., connectors for new types of data transmission cable. Perhaps most interesting is our further involvement here, as in other connection areas, with integrated circuitry. We are developing products compatible with the latest types of subminiature coaxial cables, microstrip, and other subminiature high-frequency transmission lines.



Lead frames for light-emitting diodes.



New wrench-type CATV cable connector requires no special tools.

Electric Utility Industry Products—Encouraged by the expansion forecasts for this industry, we continue to broaden our product scope in this field—both by the addition of more sizes and configurations in present product families and through development of entirely new connection products. A few years ago AMP pioneered in offering utilities a unique, powder cartridge-actuated tool to make power line connections quicker, easier and more reliable. More recently we developed internally fired connectors in which the powder charge is contained within the connector itself, eliminating the need for a tool. Recent examples of this approach are the “tool-less” lugs and Underground Residential Distribution connectors shown on page 20.

Card Readers and Data Terminals—In addition to more electromechanical card readers, we recently introduced our first magnetic readers, such as the one shown below. These new devices read the information contained on the magnetic strip on credit cards used, for example, in the air travel industry. We also developed additional models of input/output data terminals. These units utilize AMP card readers to receive the variable data. With a wide variety of AMP readers, switches and scanners to choose from, we can efficiently customize

complete units to exact customer requirements. Examples are the Job Cost Recorder shown below and the Moore unit on page 8. Indicative of our broadening capabilities, we can also supply the central multiplexer unit used with the remote terminals.

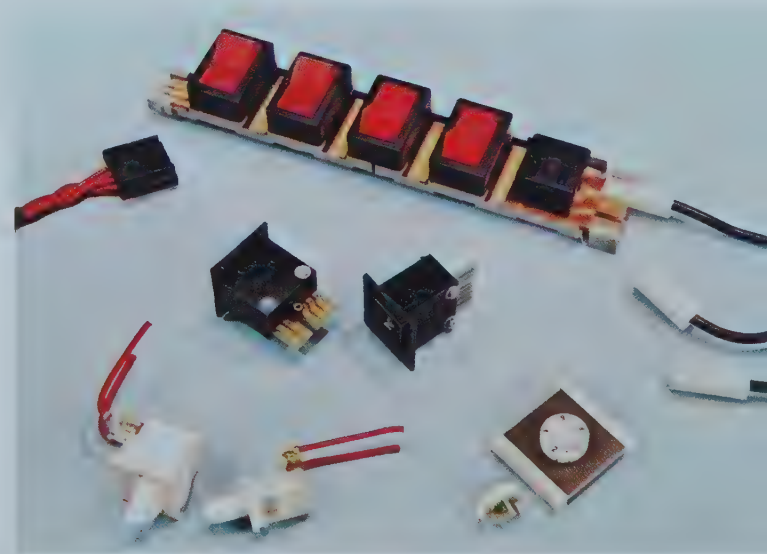
Switches—Switches offer us very good opportunities for growth. They require many of the same basic engineering and manufacturing capabilities we use for connectors, and involve many of the same customers. Through designs that reduce the number of parts and lend themselves to automated assembly, we can offer more reliable, yet less expensive, switches. We are designing switches for several markets, such as appliance and electronics (below) and automotive (page 14).

Power Packages—We have long been a supplier of very specialized, high performance capacitor and transformer products for the aerospace and military markets. In recent years our development work in this product area has emphasized commercial applications with slow, but steady, success. The tiny power supply shown below, for example, is an outgrowth of years of response to airborne, high-voltage, power supply requirements where size, weight, and performance are critical. One

Magnetic card reader (bottom) and Job Cost Recorder data terminal.



Switches developed for the appliance and commercial electronics fields.



Subminiature 5KV power supply unit.



of a new family, it is believed to be the smallest 5KV power supply commercially available at this performance level. Other commercial developments include pulse trigger packages for the laser and photography industries, solid state modulators for weather radar, high-voltage isolation transformers for medical equipment, and power supplies for communications equipment.

Building Industry Products—Because of the dramatic changes taking place recently, such as factory construction methods, modern building codes, and larger-sized producers, we are beginning to apply AMP's capabilities to the electrical and mechanical connection problems of this large field. For example, the new type of terminal and rugged hand crimping tool shown at right have been developed for use on the aluminum wire used in this industry. Our main thrust is expected to be the development of entirely new connection techniques that will reduce labor costs, and speed assembly operations—such as the extrusion fasteners also shown at right.

AMP ECONOMATION Program—The machine below is typical of our current developments. Designed for a leading consumer goods manufacturer, it will insert over 4,000 contacts per hour into switch housings—many times faster than the hand operation it replaces.



Construction industry products—sealed terminals for aluminum wire, and a unique fastening device for aluminum extrusions.

This recently developed machine will insert over 4,000 AMP contacts per hour into switch housings.





Combined

AMP INCORPORATED &

| | <i>December 31</i> | |
|--|----------------------|----------------------|
| ASSETS | 1970 | 1969 |
| CURRENT ASSETS: | | |
| Cash | \$ 5,320,000 | \$ 5,500,000 |
| Marketable securities, at cost, which approximates market . | 12,991,000 | 18,272,000 |
| Receivables | 40,188,000 | 36,120,000 |
| Inventories, at lower of cost, principally average, or market— | | |
| Finished goods and work in process | 24,255,000 | 21,434,000 |
| Purchased and manufactured parts | 19,421,000 | 16,463,000 |
| Raw material | 12,855,000 | 12,664,000 |
| Total inventories | 56,531,000 | 50,561,000 |
| Prepaid expenses, etc. | 3,633,000 | 3,383,000 |
| Total current assets | 118,663,000 | 113,836,000 |
| PROPERTY, PLANT AND EQUIPMENT, at cost: | | |
| Land | 4,392,000 | 3,673,000 |
| Buildings and leasehold improvements. | 33,317,000 | 25,838,000 |
| Machinery and equipment, etc. | 53,886,000 | 45,541,000 |
| Machines and tools with customers | 24,623,000 | 20,441,000 |
| | 116,218,000 | 95,493,000 |
| Less—Accumulated depreciation | 50,604,000 | 42,114,000 |
| Property, plant and equipment, net | 65,614,000 | 53,379,000 |
| PATENTS, at nominal value | | |
| | 1,000 | 1,000 |
| | <u>\$184,278,000</u> | <u>\$167,216,000</u> |

The accompanying notes to the combined financial

Balance Sheets

Subsidiaries and Pamcor, Inc.

LIABILITIES AND SHAREHOLDERS' EQUITY

December 31

| | 1970 | 1969 |
|--|---------------|---------------|
| CURRENT LIABILITIES: | | |
| Current portion of long-term debt and bank loans | \$ 3,601,000 | \$ 4,055,000 |
| Foreign bank obligations | 7,680,000 | 4,722,000 |
| Accounts payable | 11,367,000 | 12,232,000 |
| Accrued expenses | 10,224,000 | 10,288,000 |
| Accrued taxes on income | 13,984,000 | 16,716,000 |
| Total current liabilities | 46,856,000 | 48,013,000 |
| LONG-TERM DEBT (Note 3) | 12,346,000 | 11,537,000 |
| DEFERRED INCOME TAXES | 1,038,000 | 1,233,000 |
| INVESTMENT TAX CREDIT AND DEFERRED INCOME | 2,629,000 | 2,402,000 |
| Total liabilities | 62,869,000 | 63,185,000 |
| SHAREHOLDERS' EQUITY: | | |
| AMP Incorporated— | | |
| Common stock, without par value— | | |
| Authorized 15,000,000 shares, | | |
| issued 12,480,000 shares | 12,480,000 | 12,480,000 |
| Pamcor, Inc.— | | |
| Common stock, par value \$1.00 per share— | | |
| Authorized 50,000 shares, issued 20,000 shares | 20,000 | 20,000 |
| Retained earnings (Note 3) | 109,053,000 | 91,674,000 |
| | 121,553,000 | 104,174,000 |
| Less—Treasury stock, at cost (Note 4) | 144,000 | 143,000 |
| Total shareholders' equity | 121,409,000 | 104,031,000 |
| | \$184,278,000 | \$167,216,000 |

Statements are an integral part of these balance sheets.

Combined Statements of Income and Retained Earnings

AMP INCORPORATED & Subsidiaries and Pamcor, Inc.

For the Years Ended December 31

| | 1970 | 1969 |
|--|--------------------------|--------------------------|
| NET SALES | \$225,827,000 | \$211,256,000 |
| COST OF SALES | 127,062,000 | 116,516,000 |
| Gross income | 98,765,000 | 94,740,000 |
| SELLING, GENERAL AND ADMINISTRATIVE EXPENSES | 52,769,000 | 46,883,000 |
| Income from operations (after deducting straight-line depreciation of \$10,361,000 in 1970 and \$9,452,000 in 1969) | 45,996,000 | 47,857,000 |
| OTHER DEDUCTIONS, Net | 1,163,000 | 480,000 |
| Income before income taxes | 44,833,000 | 47,377,000 |
| INCOME TAXES | 20,344,000 | 23,097,000 |
| NET INCOME (Note 6) | \$ 24,489,000 | \$ 24,280,000 |
| <i>Per Endorsed Share</i> (weighted average) | \$2.00 | \$1.98 |
| RETAINED EARNINGS, BEGINNING OF YEAR | 91,674,000 | 73,269,000 |
| | 116,163,000 | 97,549,000 |
| LESS— | | |
| Cash dividends on common stock (58¢ and 48¢ per Endorsed Share) (Note 6) | 7,110,000 | 5,875,000 |
| RETAINED EARNINGS, END OF YEAR (Note 3) | \$109,053,000 | \$ 91,674,000 |

*The accompanying notes to the combined financial
statements are an integral part of these statements.*

Combined Statements of Source and Application of Funds

AMP INCORPORATED & Subsidiaries and Pamcor, Inc.

For the Years Ended December 31

| | 1970 | 1969 |
|--|---------------------|---------------------|
| FUNDS WERE PROVIDED FROM: | | |
| Net income | \$24,489,000 | \$24,280,000 |
| Expenses not requiring current outlays of funds— | | |
| Depreciation | 10,361,000 | 9,452,000 |
| Other | 921,000 | 844,000 |
| | <u>35,771,000</u> | <u>34,576,000</u> |
| Additions to long-term debt | 3,390,000 | 2,312,000 |
| Miscellaneous sources, net. | (215,000) | 292,000 |
| | <u>\$38,946,000</u> | <u>\$37,180,000</u> |
| AND WERE USED TO: | | |
| Acquire plant and equipment | \$23,271,000 | \$17,562,000 |
| Reduce long-term debt | 2,581,000 | 4,310,000 |
| Pay dividends to shareholders | 7,110,000 | 5,875,000 |
| Increase working capital | 5,984,000 | 9,433,000 |
| | <u>\$38,946,000</u> | <u>\$37,180,000</u> |
| Working Capital Changes—Increases (Decreases): | | |
| Cash and marketable securities | \$ (5,461,000) | \$ 4,474,000 |
| Receivables | 4,068,000 | 8,386,000 |
| Inventories | 5,970,000 | 12,787,000 |
| Prepaid expenses, etc. | 250,000 | 1,052,000 |
| Current portion of long-term debt and bank loans | 454,000 | (1,760,000) |
| Foreign bank obligations | (2,958,000) | (722,000) |
| Accounts payable and accrued expenses | 929,000 | (5,382,000) |
| Accrued taxes on income | 2,732,000 | (9,402,000) |
| Increase in working capital | <u>\$ 5,984,000</u> | <u>\$ 9,433,000</u> |

The accompanying notes to the combined financial statements are an integral part of these statements.

Notes to Combined Financial Statements—December 31, 1970

(1) PRINCIPLES OF COMBINATION:

The financial statements of Pamcor have been combined with those of AMP and its subsidiaries (all wholly owned), since each company is owned beneficially by identical shareholders. Pamcor has no active subsidiaries and no affiliates other than AMP and its subsidiaries. By trust agreement, Bankers Trust Company holds all of the Pamcor common stock for the benefit of AMP common shareholders whose certificates are endorsed to show they are entitled to a proportionate interest in the Pamcor common stock held in the Trust. This interest is not transferable separately.

Intercompany and affiliated company accounts and transactions, including unrealized profits in inventory, were eliminated in consolidating and combining the financial statements of AMP, its subsidiaries and Pamcor.

(2) **FOREIGN OPERATIONS:** As a result of including the accounts of foreign operations, the combined financial statements as of December 31, 1970, include assets amounting to \$63,684,000 (\$48,805,000 current) and liabilities amounting to \$37,140,000 (\$29,654,000 current), or net assets of \$26,544,000. The additional net income, as a result of including these foreign operations, amounted to \$11,986,000 for the year 1970 and \$10,000,000 for the year 1969.

The accounts of the foreign operations have been translated to U.S. dollars at appropriate rates of exchange and there were no significant

unrealized gains and losses thereon. The availability of remittances to the parent company is subject to the currency restrictions of the various countries.

(3) **LONG-TERM DEBT:** Long-term debt at December 31, 1970, represents a 6½% note of \$7,000,000 due to an institutional lender (including \$1,000,000 due within a year and classified as a current liability), four foreign five-year term loans totaling \$4,113,000, a foreign 20-year annuity loan (expiring in 1987) of \$1,389,000, and other debt of \$844,000.

The agreement covering the amount due to the institutional lender provides for the repayment in equal annual installments over 7 remaining years or, at the option of AMP, over 4 years without penalty. This agreement contains restrictions with respect to additional borrowings, maintenance of minimum working capital and certain other items. Payment of cash dividends and the purchase of the Company's common stock, etc., are limited to \$60,575,000 at December 31, 1970, plus the entire net income of AMP and its domestic subsidiaries and Pamcor, Inc. for subsequent periods.

(4) **STOCK PLUS CASH BONUS PLAN AND TREASURY STOCK:** All of the Endorsed Shares held in the treasury (1970—211,625; 1969—228,231) are reserved for the payment of stock bonuses under the incentive Stock Plus Cash Bonus Plan adopted by the Board of Directors. The number of shares to be distributed is determined by the

appreciation in the market value of the Company's stock. During the year ended December 31, 1970, treasury stock was increased through the purchase of 19,000 shares at \$871,000 and decreased through the distributions under the provisions of the Plan by 35,606 shares at a cost of \$870,000. For awards granted before and outstanding on December 31, 1970, and based on the market value as of that date, 152,000 shares would be distributed in the years 1971 through 1980.

(5) **EMPLOYEE RETIREMENT PLANS:** The Companies' employee retirement plans include insured contributory plans, a trusteed, non-contributory plan, and a single lump sum indemnity payment plan. Provisions aggregating \$2,464,000 in 1970 and \$1,764,000 in 1969 were made to cover current service cost on all plans plus amortization of past service cost over 7 remaining years on one of the plans. The Companies' policy is to fund pension costs accrued. The net assets of the plans exceeded the present value of vested benefits as of December 31, 1970.

(6) **PAMCOR NET INCOME AND DIVIDENDS:** Net income includes net income of Pamcor, Inc. of \$1,468,000 in 1970 and \$1,739,000 in 1969 after elimination of affiliated company profit in inventory.

Cash dividends on common stock include dividends by Pamcor, Inc. of \$614,000 in 1970 and \$367,000 in 1969.

Auditors' Report

To the Shareholders and Boards of Directors of
AMP Incorporated and Pamcor, Inc.:

We have examined the combined balance sheet of AMP INCORPORATED (a New Jersey corporation) & subsidiaries and PAMCOR, INC. (an affiliated Puerto Rican corporation) as of December 31, 1970, and the related combined statements of income and retained earnings, and the source and application of funds for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. The financial statements of the foreign subsidiaries, mentioned in Note 2, were examined by other auditors and we were furnished their reports on such financial statements. We have previously examined and reported on the combined financial statements for the preceding year.

In our opinion, based upon our examination and the reports of other auditors referred to above, the above-mentioned combined financial statements present fairly the combined financial position of AMP Incorporated & subsidiaries and Pamcor, Inc. as of December 31, 1970, and the results of their combined operations and their combined source and application of funds for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Philadelphia, Pennsylvania
February 17, 1971

Arthur Andersen & Co.

Subsidiaries

(all wholly owned and included in combined results)

American Pamcor, Inc., Valley Forge, Pennsylvania
AMP of Canada, Ltd., Toronto, Canada
AMP de Mexico, S.A., Mexico City, D.F. Mexico
AMP de France, Paris, France
AMP-Holland N.V., 's-Hertogenbosch, Holland
AMP of Great Britain Limited, London, England

AMP Italia S.p.A., Turin, Italy
AMP Deutschland G.m.b.H., Frankfurt, Germany
AMP Española, S.A., Barcelona, Spain
AMP Scandinavia A.B., Stockholm, Sweden
AMP (Japan), Ltd., Tokyo, Japan
Australian AMP Pty. Limited, Sydney, Australia

OFFICERS

U. A. WHITAKER

Chairman of the Board

G. A. INGALLS

Vice Chairman of the Board

S. S. AUCHINCLOSS

President and Chief Executive Officer

J. D. BRENNER

Vice President, Operations

GERALD F. ENGLEHART

Vice President, International

C. J. FREDRICKSEN

Vice President and Chief Financial Officer

F. S. KUGLE

Vice President, Administration

WILLIAM C. LANGE

Vice President, Director of Merchandising

S. WILSON POLLOCK

Vice President, Engineering and Research

WILLARD A. SMITH

Vice President, Manufacturing

WALTER F. RAAB

Treasurer

CLYDE RAYBURN

Controller

SOLON L. RHODE, JR.

Secretary, General Legal Counsel

DIVISIONAL VICE PRESIDENTS

(of AMP Incorporated only):

JOHN E. EBERLE

Connector and Component Products

HERMAN C. HAAS

Domestic Subsidiaries

FRANKLIN E. HOWELL

Industrial Sales

JAMES E. MARLEY

Automatic Machine Products

KENNETH L. NEIJSTROM

General Products



AMP Headquarters—Eisenhower Blvd., Harrisburg, Pa.

AMP INCORPORATED / Pamcor, Inc.

HARRISBURG, PA.

SAN JUAN, P. R.

BOARD OF DIRECTORS

*S. S. AUCHINCLOSS

President and Chief Executive Officer

F. H. BOLAND

Industrial Consultant

*(Retired Vice President,
Manufacturing and Engineering,
ACF Industries, Incorporated)*

R. M. BRUMFIELD

Chairman

*Potter & Brumfield Division,
American Machine & Foundry
Company*

*C. J. FREDRICKSEN

Vice President and Chief Financial Officer

F. C. HIXON

President

Midland Investment Company

*G. A. INGALLS

Vice Chairman of the Board

C. L. KEISTER

Retired Chairman

Dauphin Deposit Trust Company

J. T. SIMPSON

Chairman of the Board

Harsco Corporation

*U. A. WHITAKER

Chairman of the Board

**Member of Executive Committee of
the Board of Directors*

THE ANNUAL SHAREHOLDERS' MEETINGS

The annual shareholders' meetings of AMP Incorporated and Pamcor, Inc. are held the fourth Thursday of April. Formal notices, proxy statements and forms of proxy will be mailed on or about March 18, 1971 to shareholders of record on March 5, 1971 as to the April 22, 1971 meetings at 2:00 P.M. at 15 Exchange Place, Jersey City, New Jersey.

TRANSFER AGENTS

Bankers Trust Company
16 Wall Street
New York, N.Y. 10015

The Corporation Trust Company
15 Exchange Place
Jersey City, N.J. 07102

REGISTRAR

Morgan Guaranty Trust Company
of New York
30 West Broadway
New York, N.Y. 10015

STOCK

LISTED: New York Stock Exchange
SHAREHOLDERS: 7,085

AUDITORS

DOMESTIC: Arthur Andersen & Co.
INTERNATIONAL: Price Waterhouse & Co.

cient and sparing use of the means available for the end proposed 3: the system of arrangement or mode of operation or functioning of something: ORGANIZATION 4: the structure of economic life in a country, area, or period; speci: an economic system

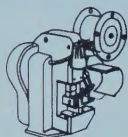
AMP E-CON-O-MATION (e-'kan-o-ma-shon) suggests a technique or process for producing electrical connections of the highest reliability at the lowest installed cost. Derived from the words ECONomy and autoMATION, the term is relevant only to the products and automated application machinery produced by AMP Incorporated and to the related services it provides.

Over 30,000 different interconnection devices and the broadest line of application machinery are available for instituting an AMP ECONOMATION program anywhere in the world.

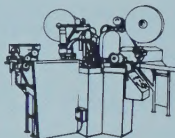
The AMPECONOMATION program can be achieved in every area of electrical/electronic circuitry by the combination of interconnection devices which have been specified at the earliest stages of product design, and in-plant installation of automated machinery suited to a manufacturer's exact production requirements. Proof of performance in the form of cost savings by design can be found in virtually every major electrical/electronic manufacturing company in the world.



Manual & Power Tools



Semiautomatic Machines



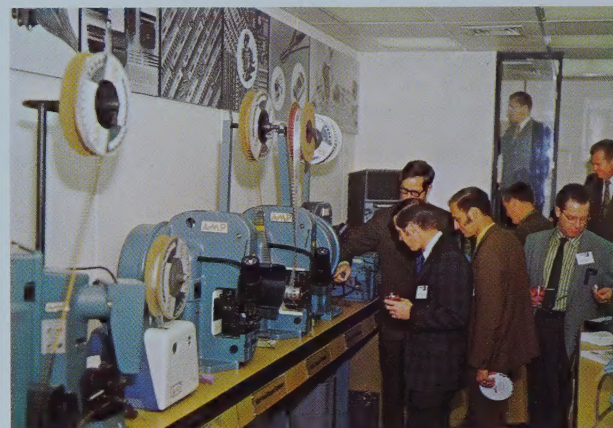
Fully Automatic Machines

Ampeconomation
COST SAVINGS BY DESIGN WORLDWIDE

We have recently added several unique marketing activities. (a) Our first AMP ECONOMATION van is shown in front of our new San Francisco district sales office location. In its first six months it visited over 115 companies. (b) In a typical tour through the van, hundreds of customer personnel see product displays and over a dozen AMP machines in actual operation. (c) Pitney Bowes-Alpex, Inc. personnel are visiting our new AMP ECONOMATION room in Harrisburg. Similar demonstration rooms were just completed in our Los Angeles and Chicago district sales offices. (d) Representatives from Mohawk Data spent several days at our "AMP Institute of Technical Training" learning about our machines and products.



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